

3800i

Industrial Linear Imager

The 3800i handheld industrial image readers are the first industrial class readers to bring you Honeywell's industry-leading image technology. This technology allows you to read bar codes at ranges up to 82 inches (208 cm). In real world applications, this extended read range means less climbing and reaching, and more operator productivity.

Based on the proprietary image technology, the 3800i picks up your bar code image and processes its content 270 times per second. In a fraction of a second, the Honeywell digital image processor quickly and easily determines the data content and sends it to your host computer. This proprietary technology quickly and securely identifies poor quality symbols, and still delivers snappy performance.

We are so confident the 3800i image reader will withstand your industrial applications that we have backed it by a solid warranty. Every 3800i comes to you with a 3 year warranty against defects. Shock absorbing rubber overmold on the case and a sealed optics module ensure this device will survive dozens of 6.5 foot (2 meter) drops to concrete. Although we do not expect you to treat your reader this way, we know it will survive many years of accidental abuse.

Your industrial applications often take you into environments that challenge many devices. Your loading dock has extreme temperature variations, dirt, dust, and rain that will stress many bar code scanners. The 3800i is environmentally sealed to an IP54 rating, which prevents dust and water from entering the units and degrading performance. Sometimes you need to use this device outdoors during winter or other freezing temperature conditions. This imager withstands applications that subject it to constant -22°F (-30° C) temperatures and still survives.

For reading in applications that exhibit high ambient light, the 3800i can be ordered with an aiming beam, which offers true point and shoot performance without moving laser optics. This option allows the operator to reliably find and scan the code.



powered by
Adaptus[®]
imaging technology 5.0

Features

- **Superior Read Range:** Imaging technology now extends the performance range out to 82 inches (208 cm) on linear codes. Long range reading performance eliminates the need to reach and climb to scan codes.
- **Durable:** There are no moving parts to wear out and Honeywell backs this with an industry-leading 3 year warranty. Reliable performance year after year with no downtime.
- **Easy to Use:** True point and shoot handheld ergonomics easily fits oversized gloved hands. Intuitive aiming means operators will become productive quickly.
- **Rugged Packaging:** An impact absorbing, shock resistant housing withstands fifty 6.5 foot (2 meter) drops, and is sealed to prevent dust, moisture, and other contaminants from entering the scanner. Designed to survive the most demanding industrial applications.
- **Fast and Aggressive Decode:** Even on poorly printed or damaged codes, the 270 scans per second digital image logic is over 6 times faster than other technologies. Spend less time trying to re-scan poor codes and speed up the work process.

3800i Specifications

Performance		Ranges for the 3800i	
Illumination:	630 nM Visible Red LED	<i>Narrow Width</i>	<i>Depth of Field (300 Lux Lighting)</i>
Receiving Device:	3648 element linear imager	7.5 mil	6.5 - 15 in. (16.5 - 38 cm)
Reading Width:	15 mil. code, 15 in. (38.1 cm) from nose, 10 in. (25.4 cm) wide	100% UPC	2.5 - 28 in. (6.4 - 71 cm)
Resolution:	7.5 mil. at 9 in. (22.9 cm) distance	15 mil	2.5 - 31 in. (6.4 - 78.7 cm)
Skew Angle:	±65°	20 mil	1.5 - 42 in. (3.8 - 107 cm)
Pitch Angle:	±65°	55 mil	4.0 - 82 in. (10.2 - 208 cm)
Horizontal Velocity:	2 in. (5.1 cm) per second		
Minimum Symbol Contrast:	20%		
Scan Rate:	Up to 270 scans per second		
Decode Rate:	270 decodes per second		

Mechanical/Electrical			
Dimensions	without aimer	with aimer*	
Length:	5.3 in. (13.5 cm)	5.3 in. (13.5 cm)	
Height:	6.4 in. (16.3 cm)	6.5 in. (16.5 cm)	
Width:	3.2 in. (8.1 cm)	3.2 in. (8.1 cm)	
Weight:	7.5 oz. (213 g)	8.4 oz. (238 g)	
Housing:	UL 94V0 grade		
Power Requirements:	4.5 - 14Vdc at scanner		
Current Draw (maximum):	<u>Input</u>	<u>Scanning</u>	<u>Idle</u>
	5V	235mA	68mA
	12V	142mA	49mA

Power Supply	
Noise Rejection:	Maximum 100mV peak to peak, 10 to 100 kHz

Environmental	
Operating Temperature:	-22°F to +122°F (-30°C to +50°C)
Storage Temperature:	-40°F to +140°F (-40°C to +60°C)
Humidity:	0 to 95%, non-condensing
Sealing:	IP54 (water and dust resistant)
Mechanical Shock:	Operational after 50 drops from 6.5 ft. (2 m) to concrete
Ambient Illumination:	0 - 70,000 lux
ESD Protection:	Functional after 15kV discharge
LED Classification:	Class 1 under EN60825-01
Laser Classification	Class 2 under 21 CFR 1040.10 and 1040.11
Aimer Beam only*:	1mW max output, 650 nM, EN60825-1: 1994+A11+A2
Vibration:	Withstands 5G peak from 22 to 300 Hz
Agency:	International: CB scheme to IEC60950-1 & IEC60825-1 Class 1 LED USA: FCC Part 15 subpart B Class B. UL listed to 60950-1 Canada: ICES-003 Class B. cUL listed to CSA C22.2 No. 60950-1-03 Europe: CE 2004/108/EC EMC Directive to EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3. 2006/95/EC Low Voltage Directive GS Mark: TÜV GS marked for I.T.E. safety Mexico: NOM-NYCE Australia/NZ: C-Tick mark
MTBF:	per MIL-HDBK-217F Ground Benign exceeds 100,000 hours without aimer, 91,000 hours with aimer
Symbologies:	Codabar, Code 39 including PARAF, Interleaved 2 of 5, Code 2 of 5, Matrix 2 of 5, Code 11, Code 93, Code 128, UPC, EAN/JAN, China Post, GS1 DataBar, and ISBT 128 Concatenation (requires a paid license).
Interfaces:	All popular PCs and terminals via keyboard wedge, keyboard replacement/direct connect, TTL level RS-232, TTL level Serial Wedge, USB, wand emulation, HHLC non-decoded laser compatible, True RS-232, IBM 468x, and IBM469x.
Warranty:	Three-year factory warranty.

*Not available in Europe; non-RoHS compliant



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3820i

Industrial Cordless Linear Imager

The 3820i Industrial Cordless Linear Imager is designed to provide high-performance linear barcode scanning for applications that demand maximum reliability in the harshest working environments.

Powered by Adaptus® Imaging Technology 5.0, the 3820i delivers fast, intuitive barcode reading across a range of high and low density codes - even those that are damaged or poorly printed. In addition, the solid state technology platform adds to the device's overall durability and reliability.

Built for scan-intensive applications requiring a ruggedized solution, the 3820i features our highest drop specification and an IP54 rating to guarantee protection against the penetration of dust and liquid. However, unlike other industrial grade solutions, the 3820i features best-in-class ergonomics – ensuring maximum user comfort and productivity.

The 3820i features a unique design that not only allows tool-free access to the battery, but also eliminates the need to dock the scanner for charging – a true advantage for operations where downtime is not an option.

Bluetooth® cordless connectivity allows users to move freely and eliminates the hazard of cables in fast-paced environments – all the while ensuring fast, accurate data communication.



Features

- **Built for Industrial Applications:** Rugged housing is specified to withstand 50 drops from 6.5 feet (2m) and certified to IP54 standards, while still being ergonomic and easy-to-use.
- **Wireless Connectivity:** Bluetooth v2.0 radio enables movement up to 33 feet (10m) from the base, and reduces interference with other wireless systems. Up to 7 imagers can communicate to 1 base, reducing the total cost of ownership.
- **High Performance Linear Barcode Scanning:** Adaptus Imaging Technology 5.0 provides reading of all linear barcodes - even those that are damaged or poorly printed.
- **Long-Lasting Lithium-Ion Battery with Tool-Free Access:** Powers up to 50,000 scans per full charge ensuring maximum uptime. Thumbwheel end-cap allows easy access to the battery, permitting employees to quickly swap batteries and keep working.
- **Simplified Device Configuration:** Visual Xpress™ software enables device programming and configuration on a host system through an easy-to-use Windows®-based graphical user interface.
- **User Feedback Designed for Extreme Environments:** Adjustable, extra loud “good read” beeper and dual LED indicators ensure reliable & intuitive feedback even in noisy environments.

Specialization Options

- **FIPS 140-2 Certified Encryption:** Federal Information Processing Standards (FIPS) certified for wireless data transmission, meeting advanced US Government security requirements, and providing enhanced security in any application involving sensitive data.

3820i Specifications

Performance

Illumination:	630 NM Visible Red LED
Receiving Device:	3648 element linear imager
Reading Distance:	From 1 in. (2.5 cm) to 24 in. (61 cm) on medium density codes
Reading Width:	7.5 mil code: 7 in. (18 cm) from nose, 6.6 in. (17 cm) wide 13 mil code: 16.5 in. (42 cm) from nose, 10 in. (25 cm) wide
Resolution:	5 mil. at 5 in. (13 cm) distance
Skew Angle:	+65°
Pitch Angle:	+65°
Minimum Symbol Contrast:	20%
Scan Rate:	Up to 270 scans per second
Decode Rate:	270 decodes per second

Wireless Technology

Frequency:	2.4 to 2.4835 GHz (ISM Band) Frequency-Hopping Bluetooth PRD 2.0 plus EDR
Range:	33 ft. (10 m) typical
Data Rates:	720 KBps to 3 MBps
Security:	FIPS 140-2 optional

Battery (Lithium Ion)

Capacity:	2,000 mAh (typical)
Number of Scans:	57,000
Expected Hours of Operation:	16 hours
Charge Time with 9 VDC External Power Supply:	4 hours for full charge from full discharge

Symbologies: China Post, Codabar, Codablock F, Code 2 of 5, Code 11, Code 16K, Code 39, Code 32 Pharmaceutical (PARAF), Code 49, Code 128, EAN/JAN, IATA Code 2 of 5, Interleaved 2 of 5, Korea Post, Matrix 2 of 5, Coupon Code, MSI, Plessey Code, PosiCode, GS1 DataBar, Telepen, Trioptic, UPC-A, UPC-E, and ISBT 128 Concatenation (requires a paid license). 2005 Sunrise/GTIN compliant.

Interfaces: All popular PCs and terminals via keyboard wedge, keyboard replacement/direct connect, USB, TTL level RS-232, wand emulation mode, TTL level Serial Wedge, and IBM 46XX retail terminals.

Mechanical/Electrical

	3820i Scanner with Battery	2020 Base
Dimensions		
Weight:	9.6 oz. (272 g)	8.8 oz. (250 g) w/o cable
Height:	6.5 in. (16.5 cm)	3.1 in. (7.9 cm)
Power Requirements		
Input Voltage:	3.7 V internal battery	4.7 to 14 VDC (host) 8.5 to 9.5 VDC external power supply
Current Draw		125 mA max @ 5V (no charging) 100 mA max @ 12V (no charging) 825 mA max @ 12V (charging)

Environmental

	3820i Scanner with Battery	2020 Base
Sealing:	IP 54 (Water and Dust Resistant)	
Operating Temperature:	14° to 122°F (-10° to 50°C)	32° to 122°F (0° to 50°C)
Storage Temperature:	-40° to 158°F (-40° to 70°C)	-40° to 140°F (-40° to 60°C)
Humidity:	up to 95%, non condensing	
Mechanical Shock:	Functional after 50 drops from 6.5 ft. (2.0 m)	Functional after 50 drops from 3.3 ft. (1 m)
Ambient Illumination:	0-76,000 lux	
ESD Protection:	Functional after 15 kV discharge	
Agency:	International: CB scheme to IEC60950-1 & IEC60825-1 Class 1 LED (3820i). Bluetooth Qualified Design listed QDID: B013520. USA: FCC Part 15 subpart C. UL listed to 60950-1. Canada: RSS-210. cUL listed to CSA C22.2 No. 60950-1-03. Europe: CE 1999/5/EC R&TTE Directive to EN55022, EN55024, EN61000-3-2, EN61000-3-3. 2006/95/EC Low Voltage Directive (2020). GS Mark: GS marked for I.T.E. safety. Australia/NZ: C-Tick mark.	
Warranty:	3 years (Note: battery warranty is 1 year)	

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The 3820i Industrial Cordless Linear Imager has no affiliation with Honeywell branded batteries/chargers, which are exclusively distributed by Global Technology Systems pursuant to a license agreement.

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